

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Vincent Carl HARRADINE et al.  
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 International Filing Date: 30 March 2001  
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 Title of Invention: AUDIO/VIDEO REPRODUCING APPARATUS AND METHOD

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**PRELIMINARY AMENDMENT**

U.S. Patent and Trademark Office  
 Box PCT Application  
 P.O. Box 2327, Arlington, VA 22202

Sir:

Before the issuance of the first Office Action, please amend the above-identified application as follows:

**IN THE SPECIFICATION:**

Page 1, before line 1, add the following:

--This is a continuation of copending International Application PCT/GB01/01452 having an international filing date of 30 March 2001.--

**IN THE CLAIMS:**

Please amend claims 4-8, 10, 12, 17, 18, 20, 22-25, 28-30, 33, 35, 42-45 and 49-53 as follows:

3. (Amended) An audio/video reproducing apparatus as claimed in claim 1,
  - a first network interface connectable to a first communications network for receiving said data representing said requests for said audio/video material items, and
  - a second network interface connectable to a second communications network for communicating said items of audio/video material.
4. (Amended) An audio/video reproducing apparatus as claimed in claim 1, wherein said first network interface is arranged to operate in accordance with a data communications network standard such as Ethernet, RS 322 or RS 422 or the like.
5. (Amended) An audio/video reproducing apparatus as claimed in claim 3, wherein said second network interface is arranged to operate in accordance with the Serial Digital Interface (SDI) or the Serial Digital Transport Interface (SDTI).
6. (Amended) An audio/video reproducing apparatus as claimed in claim 1, wherein said data representing requests for audio/video material items includes meta data indicative of the audio/video material items.
7. (Amended) An audio/video reproducing apparatus as claimed in claim 6, wherein said meta data is at least one of UMID, tape ID and time codes, and a Unique Material Reference Number, identifying the material items.

8. (Amended) An audio/video reproducing apparatus as claimed in claim 2, wherein said reproducing apparatus comprises a plurality of audio/video recording/reproducing apparatus each of which is coupled to said control processor via a local data bus.
10. (Amended) An audio/video reproducing apparatus as claimed in claim 1, comprising
  - a display device which is arranged in operation to display images representative of said audio/video material items present on said recording medium.
12. (Amended) An audio/video reproducing apparatus as claimed in claim 2, wherein said control processor is arranged to generate data representing a material identifier for each of said audio/video material items, from data recorded with said audio/video material items on said recording medium.
17. (Amended) A video processing apparatus as claimed in Claims 15, wherein said sample images are represented by a substantially reduced amount of data in comparison to said images represented by said video signal.
18. (Amended) A video processing apparatus as claimed in claim 15, comprising
  - a reproduction processor which is arranged in operation to receive a recording medium on which said video signals are recorded and to reproduce said video signals from said recording medium.
20. (Amended) A video processing apparatus as claimed in claim 15, comprising
  - a display device for displaying said sample images.
22. (Amended) A video processing apparatus as claimed in claim 15, comprising
  - a communications processor which is arranged in operation to communicate said sample images.

23. (Amended) A video processing apparatus as claimed in claim 15, wherein said activity detector generates said activity signal by forming a histogram of colour components of said video image and determining a rate of change of said colour components.

24. (Amended) A video processing apparatus as claimed in claim 15, wherein said activity detector generates said activity signal from motion vectors of image components of said video image signal.

25. (Amended) An editing system having a database connected to a communications channel and a video processor as claimed in claim 22, connected to said communications channel via the communications processor, said communications processor being arranged in operation to communicate said sample images to said database, in which said sample images are stored.

28. (Amended) An audio processing apparatus as claimed in claim 26, comprising  
- a reproduction processor which is arranged in operation to receive a recording medium on which said audio signals are recorded and to reproduce said audio signals from said recording medium.

29. (Amended) An audio processing apparatus as claimed in claim 26, wherein said content information generator is arranged in operation to generate, for each of said sample images a material identification representative of a location on said recording medium where the audio signals corresponding to said content data are recorded.

30. (Amended) An audio processing apparatus as claimed in claim 26, wherein said content data is representative of text corresponding to the content of the speech.

33. An audio processing apparatus as claimed in claim 26, comprising  
- a communications processor which is arranged in operation to communicate said content data.

35. An audio/video processing apparatus comprising

- a video processing apparatus comprising
- an activity detector which is arranged in operation to receive said video signals and to generate an activity signal indicative of an amount of activity within the images represented by the video signal, and
- an image generator coupled to the activity detector which is arranged in operation to receive said video signal and said activity signal and to generate sample images at temporal positions within said video signal, which temporal positions are determined from said activity signal; and
- an audio processing apparatus comprising
- a speech analysis processor which is arranged in operation to generate speech data identifying speech detected within said audio signals,
- an activity processor coupled to said speech analysis processor and arranged in operation to generate an activity signal in response to said speech data, and
- a content information generator, coupled to said activity processor and said speech analysis processor and arranged in operation to generate data representing the content of said speech at temporal positions within said audio signal determined by said activity signal.

42. (Amended) A system as claimed in claim 40, wherein said second network interface is arranged to operate in accordance with the Serial Digital Interface (SDI) or the Serial Digital Transport Interface (SDTI).

43. (Amended) A system as claimed in claim 38, wherein said meta data includes at least one of UMID, tape ID and time codes, and a Unique Material Reference Number, identifying the material items.

44. (Amended) A system as claimed in claim 38, wherein said meta data includes sample images representing the content of the audio/video material items at sample temporal positions within said audio/video material items.

45. (Amended) A system as claimed in claim 38, wherein said recording medium includes said meta data describing the content of the audio/video material items recorded on to said recording medium, and said ingestion processor is arranged in operation to reproduce said meta data and to communicate said meta data via said network to said data base, said data base operating to receive and to store said meta data.

49. (Amended) A computer program providing computer executable instructions, which when loaded onto a data processor configures the data processor to operate as an audio/video reproducing apparatus according to claim 1.

50. (Amended) A computer program providing computer executable instructions, which when loaded on to a data processor causes the data processor to perform the method according to claim 14.

51. (Amended) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 49.

52. (Amended) A signal representing audio and/or video material produced by the an audio/video reproducing apparatus according to claim 1.

53. (Amended) A data carrier on which is recorded data representing audio and/or video material produced by the an audio/video reproducing apparatus according to claim 1.

Cancel claims 54-58.

Add the following new claims 59-77:

--59. (New) A computer program providing computer executable instructions, which when loaded onto a data processor configures the data processor to operate as a video processing apparatus according to claim 15.--

--60. (New) A computer program providing computer executable instructions, which when loaded onto a data processor configures the data processor to operate as an audio processing apparatus according to claim 26.--

--61. (New) A computer program providing computer executable instructions, which when loaded onto a data processor configures the data processor to operate as an editing system according to claim 38.--

--62. (New) A computer program providing computer executable instructions, which when loaded on to a data processor causes the data processor to perform the method according to claim 36.--

--63. (New) A computer program providing computer executable instructions, which when loaded on to a data processor causes the data processor to perform the method according to claim 37.--

--64. (New) A computer program providing computer executable instructions, which when loaded on to a data processor causes the data processor to perform the method according to claim 46.--

--65. (New) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 50.--

--66. (New) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 59.--

- 67. (New) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 60.--
- 68. (New) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 61.--
- 69. (New) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 62.--
- 70. (New) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 63.--
- 71. (New) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 64.--
- 72. (New) A signal representing the sample images produced by the video processing apparatus according to claim 15.--
- 73. (New) A signal representing the data representing the content of the speech produced by the audio processing apparatus according to claim 26.--
- 74. (New) A signal representing an audio/video production produced by the editing system according to claim 38.--
- 75. (New) A data carrier on which is recorded data representing the sample images produced by the video processing apparatus according to claim 15.--
- 76. (New) A data carrier on which is recorded data representing the content of the speech produced by the audio processing apparatus according to claim 26.--
- 77. (New) A data carrier on which is recorded data representing an audio/video production produced by the editing system according to claim 38.--

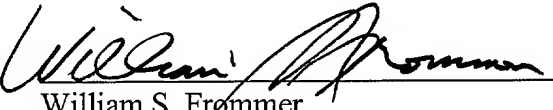


**REMARKS**

This amendment is made to provide proper reference to the International application of which this is a continuation. See MPEP § 1895.01. The claims are amended to eliminate multiple dependencies. The filing fee has been calculated in accordance with this Preliminary Amendment. The attached is captioned **“Version with markings to show changes have been made”** and indicates the changes that have been made herein.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE****In the claims:**

3. (Amended) An audio/video reproducing apparatus as claimed in claim 1 ~~Claim 1 or 2~~,  
 - a first network interface connectable to a first communications network for receiving said data representing said requests for said audio/video material items, and  
 - a second network interface connectable to a second communications network for communicating said items of audio/video material.
4. (Amended) An audio/video reproducing apparatus as claimed in claim 1 ~~any preceding Claim~~, wherein said first network interface is arranged to operate in accordance with a data communications network standard such as Ethernet, RS 322 or RS 422 or the like.
5. (Amended) An audio/video reproducing apparatus as claimed in claim 3 ~~any of Claims 3 or 4~~, wherein said second network interface is arranged to operates in accordance with the Serial Digital Interface (SDI) or the Serial Digital Transport Interface (SDTI).
6. (Amended) An audio/video reproducing apparatus as claimed in claim 1 ~~any preceding Claim~~, wherein said data representing requests for audio/video material items includes meta data indicative of the audio/video material items.
7. (Amended) An audio/video reproducing apparatus as claimed in claim 6 ~~any preceding Claim~~, wherein said meta data is at least one of UMID, tape ID and time codes, and a Unique Material Reference Number, identifying the material items.
8. (Amended) An audio/video reproducing apparatus as claimed in claim 2 ~~any of Claims 2 to 7~~, wherein said reproducing apparatus comprises a plurality of audio/video recording/reproducing apparatus each of which is coupled to said control processor via a local data bus.

10. (Amended) An audio/video reproducing apparatus as claimed in claim 1 ~~any preceding Claim~~, comprising

- a display device which is arranged in operation to display images representative of said audio/video material items present on said recording medium.

12. (Amended) An audio/video reproducing apparatus as claimed in claim 2 ~~any of Claims 2 to 11~~, wherein said control processor is arranged to generate data representing a material identifier for each of said audio/video material items, from data recorded with said audio/video material items on said recording medium.

17. (Amended) A video processing apparatus as claimed in claims 15 ~~Claims 15 or 16~~, wherein said sample images are represented by a substantially reduced amount of data in comparison to said images represented by said video signal.

18. (Amended) A video processing apparatus as claimed in claim 15 ~~any of Claims 15 to 17~~, comprising

- a reproduction processor which is arranged in operation to receive a recording medium on which said video signals are recorded and to reproduce said video signals from said recording medium.

20. (Amended) A video processing apparatus as claimed in claim 15 ~~any of Claims 15 to 19~~, comprising

- a display device for displaying said sample images.

22. (Amended) A video processing apparatus as claimed in claim 15 ~~any of Claims 15 to 21~~, comprising

- a communications processor which is arranged in operation to communicate said sample images.

23. (Amended) A video processing apparatus as claimed in claim 15 ~~any of Claims 15 to 22~~, wherein said activity detector generates said activity signal by forming a histogram of colour components of said video image and determining a rate of change of said colour components.

24. (Amended) A video processing apparatus as claimed in claim 15 ~~any of Claims 15 to 23~~, wherein said activity detector generates said activity signal from motion vectors of image components of said video image signal.

25. (Amended) An editing system having a database connected to a communications channel and a video processor as claimed in claim 22 ~~any of Claims 22, 23 or 24~~, connected to said communications channel via the communications processor, said communications processor being arranged in operation to communicate said sample images to said database, in which said sample images are stored.

28. (Amended) An audio processing apparatus as claimed in claim 26 ~~Claims 26 or 27~~, comprising

- a reproduction processor which is arranged in operation to receive a recording medium on which said audio signals are recorded and to reproduce said audio signals from said recording medium.

29. (Amended) An audio processing apparatus as claimed in claim 26 ~~any of Claims 26, 27 or 28~~, wherein said content information generator is arranged in operation to generate, for each of said sample images a material identification representative of a location on said recording medium where the audio signals corresponding to said content data are recorded.

30. (Amended) An audio processing apparatus as claimed in claim 26 ~~any of Claims 26 to 29~~, wherein said content data is representative of text corresponding to the content of the speech.

33. An audio processing apparatus as claimed in claim 26 ~~any of Claims 26 to 32~~, comprising

- a communications processor which is arranged in operation to communicate said content data.

35. An audio/video processing apparatus comprising

- a video processing apparatus ~~as claimed in any of Claims 15 to 24, and~~ comprising
- an activity detector which is arranged in operation to receive said video signals and to generate an activity signal indicative of an amount of activity within the images represented by the video signal, and
- an image generator coupled to the activity detector which is arranged in operation to receive said video signal and said activity signal and to generate sample images at temporal positions within said video signal, which temporal positions are determined from said activity signal, and
- an audio processing apparatus ~~as claimed in any of Claims 26 to 33~~ comprising
- a speech analysis processor which is arranged in operation to generate speech data identifying speech detected within said audio signals,
- an activity processor coupled to said speech analysis processor and arranged in operation to generate an activity signal in response to said speech data, and
- a content information generator, coupled to said activity processor and said speech analysis processor and arranged in operation to generate data representing the content of said speech at temporal positions within said audio signal determined by said activity signal.

42. (Amended) A system as claimed in claim 40 ~~Claims 40 or 41~~, wherein said second network interface is arranged to operate in accordance with the Serial Digital Interface (SDI) or the Serial Digital Transport Interface (SDTI).

43. (Amended) A system as claimed in claim 38 ~~any of Claims 38 to 42~~, wherein said meta data includes at least one of UMID, tape ID and time codes, and a Unique Material Reference Number, identifying the material items.

44. (Amended) A system as claimed in claim 38 ~~any of Claims 38 to 43~~, wherein said meta data includes sample images representing the content of the audio/video material items at sample temporal positions within said audio/video material items.

45. (Amended) A system as claimed in claim 38 ~~any of Claims 38 to 44~~, wherein said recording medium includes said meta data describing the content of the audio/video material items recorded on to said recording medium, and said ingestion processor is arranged in operation to reproduce said meta data and to communicate said meta data via said network to said data base, said data base operating to receive and to store said meta data.

49. (Amended) A computer program providing computer executable instructions, which when loaded onto a data processor configures the data processor to operate as an audio/video reproducing apparatus according to claim 1 ~~any of Claims 1 to 13, or 35, or a video processing apparatus according to any of Claims 15 to 24, or an audio processing apparatus according to any of Claims 26 to 33, or an editing system according to any of Claims 25, 34 or 38 to 45.~~

50. (Amended) A computer program providing computer executable instructions, which when loaded on to a data processor causes the data processor to perform the method according to claim 14 ~~any of Claims 14, 36, 37 or Claims 46 to 48.~~

51. (Amended) A computer program product having a computer readable medium recorded thereon information signals representative of the computer program claimed in claim 49 ~~any of Claims 49 or 50.~~

52. (Amended) A signal representing audio and/or video material produced by the an audio/video reproducing apparatus according to claim 1 ~~any of Claims 1 to 13, or 35, or the sample images produced by the video processing apparatus according to any of Claims 15 to 24, or the data representing the content of the speech produced by the audio processing apparatus~~

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53. (Amended) A data carrier on which is recorded data representing audio and/or video material produced by the an audio/video reproducing apparatus according to claim 1 ~~any of Claims 1 to 13, or 35, or the sample images produced by the video processing apparatus according to any of Claims 15 to 24, or the data representing the content of the speech produced by the audio processing apparatus according to any of Claims 26 to 33, or an audio/video production produced by the editing system according to any of Claims 25, 34 or 38 to 45.~~

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